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E ELKINSC/AU  
E ELKINS C/AU  
L1 4 S E3,E5  
L2 1 S L1 AND CENTRIFUG?  
E BASS L/AU  
L3 1 S E3-28 AND CENTRIFUG?  
L4 3864 S CENTRIFUG?(2A) (TUBE OR BOTTLE OR VESSEL OR VIAL)  
L5 32 S L4(10A) (TIP OR NOZZLE OR DISPENS? OR NIPPLE)  
L6 27 S L4 AND TAPER?  
L7 15 S L4 AND(BOTTOM OR END) (4A) (OPENING OR HOLE OR PASSAGE OR CHANNEL)  
L8 5 S L4(10A) VALVE  
L9 12 S L4 (10A) FUNNEL  
L10 7 S L4 AND FUNNEL/TI,IT,ST  
L11 91 S L5-10

=> d bib,ab 1-91

L11 ANSWER 4 OF 91 CA COPYRIGHT 2004 ACS on STN  
AN 136:403595 CA  
TI **Centrifuge tube** and method for collecting and **dispensing** mixed concentrated  
fluid samples  
IN Elkins, Carlos D.  
PA USA  
SO U.S., 8 pp.  
PI US 6401552 B1 20020611 US 2000-551221 20000417  
PRAI US 2000-551221 20000417  
AB A **centrifuge tube** for collecting and **dispensing** a mixed concd. fluid sample.  
The **centrifuge tube** has an elongated tube body with an open top end and a  
bottom end preferably having a dispensing spout. A divider insert is  
positioned inside the inner vol. of the tube body to divide the inner vol.  
into upper and lower chambers. The divider insert has a funnel shape with  
an inverted conical section and a funnel spout having a spout tip. The  
spout tip extends into the lower chamber while remaining above the bottom  
end. Upon filling the upper chamber with a fluid and subjecting it to  
centrifugal forces inside a centrifuge, a concd. fluid sample is collected  
in the lower chamber with an air pocket captured between the spout tip and  
the divider insert. The concd. fluid sample may then be agitated to mix the  
sedimented solids with the liq. of the concd. fluid sample, and the now  
mixed concd. fluid sample subsequently dispensed

L11 ANSWER 6 OF 91 CA COPYRIGHT 2004 ACS on STN  
AN 131:157321 CA  
TI Transformations of volatile methylated selenium in soil  
AU Martens, Dean A.; Suarez, Donald L.  
CS USDA-ARS US Salinity Laboratory, CA, 92507, USA  
SO Soil Biology & Biochemistry (1999), 31(10), 1355-1361  
AB Microbial volatilization of selenium as dimethylselenide (DMSe) and  
dimethyldiselenide (DMDSe) from soil is an important part of the Se cycle in  
nature, but little is known about the stability and transformations of these  
gases during residence in the soil environment before dissipation to the  
atm. Expts. monitored by gas chromatog. and at. absorption spectroscopy  
were made with various clay mineral stds., charcoal, com. humic substances  
and soils to det. the sorption and transformations of DMSe and DMDSe  
injected into the headspace or passed through soil materials. Batch expts.

conducted with 2-5 g materials placed into 40 mL Teflon **centrifuge tubes** equipped with Mininert gas sampling **valves** showed that DMSe was slowly sorbed by soil materials and most of the DMSe deficit in the headspace was recovered as SeO<sub>3</sub>- and SeO<sub>4</sub>-. In contrast, DMDSe was rapidly partitioned from the gas phase and resulted in an increased recovery of less sol. elemental and selenide-Se forms. These results were confirmed during flow-through soil column studies with both little DMSe sorption and sorption of the majority of DMDSe addn. Addns. of selenomethionine (SeMet) to soil to produce DMSe and DMDSe in sealed flasks resulted in an increased partitioning of Se into inorg. Se when compared with a flow-through system designed to limit the contact of Se gases with soil. Thus, soil Se volatilization as DMSe and DMDSe results in Se loss to the atm. as DMSe with concomitant soil Se immobilization due to the instability of DMDSe.

L11 ANSWER 8 OF 91 CA COPYRIGHT 2004 ACS on STN

AN 125:322313 CA

TI Pipet

IN Uchida, Toshiki

PA Japan

SO PCT Int. Appl., 20 pp.

PI WO 9630123 A1 19961003 WO 1996-JP700 19960318

US 5824272 A 19981020 US 1996-768074 19961216

PRAI JP 1995-91671 19950324

AB A pipet for taking out a specimen or a sample from a **centrifuge** or test **tube**, wherein a colored area (1b) is formed at the **tip** (1b) of the body (1) of a pipet as a mark for recognizing the position of the tip with the eye. The area (1b) is formed by coloring with a coating material or by welding or adhesion of a colored tube. Alternatively, such a recognizing mark may be formed by opacifying part of the tip of the body by fretting or abrading the outside surface corresponding to the part or treating it with chems. When the resulting pipet is inserted into a centrifuge or test tube, the colored or opaque area can be recognized with the eye without fail even when immersed in a solvent in the tube, which makes it possible to easily det. whether the tip is accurately located in the objective layer to be sampled or not.

L11 ANSWER 19 OF 91 CA COPYRIGHT 2004 ACS on STN

AN 113:20516 CA

TI **Vessel** for **centrifugal** cryoglobulin separation and handling

IN Dillon, David M.; Franks, Stephen H.

PA Baxter International, Inc., USA

SO U.S., 11 pp.

PI US 4915847 A 19900410 US 1987-81484 19870804

PRAI US 1986-925318 19861031

AB The title vessel comprises (1) a hollow body portion with 1st and 2nd ends; (2) a sump extending from and closing the 2nd end; (3) a **tapered** portion of the hollow body extending to and connecting with the sump, so as to funnel dense blood products thereto when centrifuged; and (4) means defining a port entering the vessel at the **tapered** body portion for decanting plasma after centrifugation without remixing the dense sepd. products in the sump. A method of sepg. a cryoppt. from blood plasma using the above app. is described. The isolated cryoppt. may be used to treat surgical joints by extruding the cryoppt. from the sepn. vessel into the surgical joint.

L11 ANSWER 20 OF 91 CA COPYRIGHT 2004 ACS on STN

AN 107:136487 CA

TI Filter for **centrifuge tube**

IN Lyman, George F.; Mathus, Gregory

PA Costar Corp., USA

SO U.S., 6 pp.

PI US 4683058 A 19870728 US 1986-841583 19860320

PRAI US 1986-841583 19860320

AB A pressure filter insertable in a **centrifuge tube** for filtering by a centrifugal force is described. A filter tube has a pressure filter at its lower end and an opening at its upper end adapted to be sealed by a cap extending from the **centrifuge tube** to hold the filter tube securely in position within the **centrifuge tube**. The filter tube is filled with a mixt. of permeable and non-permeable materials and when the composite **centrifuge tube** and filter tube is spun in the centrifuge, the centrifugal force causes the permeable materials to flow through the filter and collect in the bottom of the **centrifuge tube** while the non-permeable materials are retained in the filter tube.

L11 ANSWER 21 OF 91 CA COPYRIGHT 2004 ACS on STN

AN 106:140876 CA

TI A new method for the rapid float-sink analysis of coal fines

AU Franzidis, J. P.; Harris, M. C.

CS Dep. Chem. Eng., Univ. Cape Town, Rondebosch, 7700, S. Afr.

SO Journal of the South African Institute of Mining & Metallurgy (1986), 86(10), 409-14

AB A device for the rapid float-sink anal. of coal fines in a centrifuge consists of a **tapered** tube with a bottom sealed by a conical phys. This plug is linked via a rod to a spring at the top of the device. During centrifugation, the bottom of the tube is opened when sufficient downward force acts on the plug. The device fits into a std. 100-mL **centrifuge tube**. The method requires approx. 2 g of coal and lowers anal. time by a factor of 10.

L11 ANSWER 33 OF 91 CA COPYRIGHT 2004 ACS on STN

AN 86:123377 CA

TI **Centrifugal filtration tube** for removal of the mother liquor from the crystals in the purification of a chemical compound by recrystallization

IN Skau, Evald I.

PA United States Dept. of Agriculture, USA

SO U. S. Pat. Appl., 22 pp. Avail. NTIS.

PI US 615039 A0 19750919 US 1975-615039 19750919

PRAI US 1975-615039 19750919

AB The improved **centrifugal filtration tube** (glass container) consists of a glass crystn. chamber supplied with a male member of a std. **taper** ground joint, a filtrate chamber or receiver supplied with a female member of the ground joint (by which the 2 chambers can be joined together to form a air-tight and leak-proof container) a beveled edge strainer to hold back the crystals and allow the filtrate to flow through into the receiver, and a splash guard uniquely designed to prevent splashing and creeping of the mother liquor into the crystals. The app. is particularly suitable for purifns. requiring centrifugal filtration at a specified temp. Since the filter area is very large, only a short time is required for the centrifugal sepn. of the mother liquor from the crystals. As the container requires no gasket, it can be used for the purifn. of a variety of compds., solvents, and solns., at high temps. without contamination.

L11 ANSWER 39 OF 91 CA COPYRIGHT 2004 ACS on STN

AN 81:93444 CA

TI Separation apparatus for liquid mixtures by chromatography or centrifugal action

IN Nishizawa, Hideyuki

SO U.S., 6 pp.  
 PI US 3800956 A 19740402 US 1971-159435 19710702  
 PRAI JP 1970-9153 19701102

AB A device that can be used as a **centrifuge tube** or a sepg. funnel and in column chromatog. consists of a cylindrical glass body with a tubular outflow portion. The tubular portion has an external thread and a flat end. A plastic cap for the threaded tube has an internal thread, an internal flat surface, and an off-center hole.

L11 ANSWER 40 OF 91 CA COPYRIGHT 2004 ACS on STN  
 AN 80:147225 CA  
 TI Phase separation in liquid-liquid extraction  
 PA Kernforschungsanlage Juelich G.m.b.H.  
 SO Brit., 4 pp.  
 PI GB 1345679 A 19740130 GB 1972-14553 19720328  
 US 4203840 A 19800520 US 1971-209882 19711220  
 PRAI DE 1971-2115032 19710329

AB A polyethylene **centrifuge tube** in phase sepn. of radionuclide liq.-liq. exts. had a **tapered** base with a tube reaching from the PTFE stopper almost to the bottom of the device, the internal tube being closed at the lower end by a stopper which was forced out by centrifugal force. In use, the heavier phase was extd. through the central **tube** after **centrifugation**. Batchwise detns. of partition coeffs. in the 10-5-10-5 range were possible, with  $\leq \mu\text{Ci}$  amts. of radionuclide. The app. was inexpensive, allowing for disposal of contaminated parts, and anal. in Pb-shielded cells was possible.

L11 ANSWER 46 OF 91 CA COPYRIGHT 2004 ACS on STN  
 AN 69:97895 CA  
 TI Modified centrifuge apparatus for heavy liquid separations  
 AU Sharma, M. R.; Krishnaswami, S. P.  
 CS Reg. Res. Lab., Jammu-Tawi, India  
 SO Journal of Sedimentary Petrology (1968), 38(2), 648-9  
 AB An improved glass sepg. **centrifuge tube** with a glass **valve** arrangement is described for the lab. sepn. of carbonate minerals having a close range of sp. grs.

L11 ANSWER 47 OF 91 CA COPYRIGHT 2004 ACS on STN  
 AN 68:53661 CA  
 TI "Hollow plug" for the rapid removal of ions from small volumes of liquid  
 AU Briggs, Dennis E.  
 CS Univ. Birmingham, Birmingham, UK  
 SO Analytical Biochemistry (1967), 21(1), 151-3  
 AB Hollow plugs of the inert material poly(tetrafluoroethylene) (I) were machined from I rod so that they fitted snugly into the top of plastic **centrifuge tubes**. The tip of each plug **ends** in a **hole** 0.343 mm. in diam., situated at the end of a blunt cone. This hole is small enough to retain aq. solns. unless they are forced through by pressure or by centrifugal force. For the removal of pos. charged materials, a portion of a slurry of washed ion-exchange resin (for example, Amberlite IR-120-H<sup>+</sup> in distd. water) is placed in each plug, which is seated in a **tube** and is **centrifuged** until all the liq. has drained into the tube, the ion-exchange resin being retained. The **centrifuge tubes** are emptied and dried before use. The samples to be deionized are added to the resin in the plugs and, when sufficient time has elapsed, as detd. by trials, to remove, e.g., amino acids and ammonium ions from the liq., the units are briefly centrifuged in a swing-out head to drain the liq. into the tube. By adding small quantities of distd. water and centrifuging, thus washing the resin, it is possible to sep. all the sugars from the resin and collect them quant., free from amino

acids. of testosterone-4-14C is  $90 \pm 5\%$ .

L11 ANSWER 51 OF 91 CA COPYRIGHT 2004 ACS on STN

AN 66:34687 CA

TI Enamine reactions for the undergraduate organic laboratory. A student water separator

AU Darling, Stephen D.

CS Univ. of Southern California, Los Angeles, CA, USA

SO Journal of Chemical Education (1966), 43(12), 665-6

AB A standard-taper lab. kit was used successfully in an arrangement which operates as a water separator. A 50-ml. polypropylene centrifuge tube is warmed and forced over the end of a condenser; when the plastic cools, a tight seal is formed. The condenser and flask are joined by a curved adapter and the app. is adjusted to provide an unobstructed flow of liquid and vapor. An all-glass app. is easily constructed if a condenser with a ground joint is used. A curved vacuum adapter, with the side arm closed by a rubber bulb, connects the condenser to the flask. The tapered tube is about 20 ml. capacity and doubles as a small reaction vessel or distn. flask. An even more efficient separator can be made if an internal funnel is inserted to conduct all of the condensate to the bottom of the tube. This is made of a piece of 6-mm. glass tubing flared at one end and inserted into a piece of cork. A summary of the conditions for the alkylation of 1-pyrrolidinocyclohexene and the yield of the product is given.

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